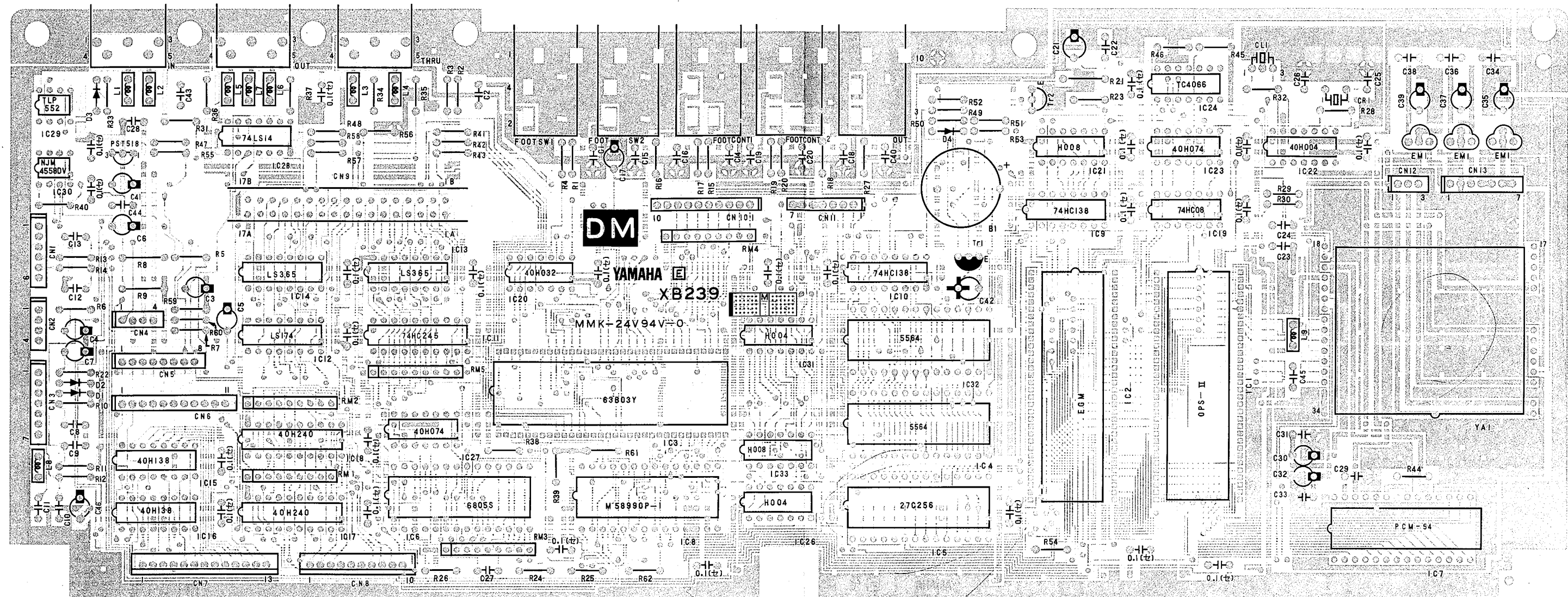


# CIRCUIT BOARDS (シート基板図)

## DM Circuit Board



Components side (部品側)

## Notes)

Circuit Boards: XB239E

IC1: YM2604 (XA489001) OPS2  
 2: YM3609 (XA898001) EGM  
 3: HD63B03YP (XA444001) MPU  
 4, 32: TC5564PL-15 (XB013001) SRAM 8K x 8  
 5: 983V010 (XC428001) EPROM  
 6: HD6805S1A33P (IG105300) CPU  
 7: PCM54HP (XA566001) DAC  
 8: M58990P-1 (IG106100) ADC  
 9, 10: TC74HC138P (IR013800) DECO-8  
 11: MC74HC245N (IR024570) TRAN  
 12: HD74LS174P (IG050000) DFF  
 13, 14: HD74LS365AP (IG103200) DRIVER  
 15, 16: TC40H138P (IG111900) DEC DEMP  
 17, 18: TC40H240P (IG068100) INV  
 19: MN74HC08 (IR000890) AND  
 20: TC40H032P (IG052800) OR  
 21, 33: TC40H008P (IG096400) AND  
 22, 26, 31: TC40H004P (IG051000) INV  
 23, 27: TC40H074P (IG051100) DFF  
 24: TC4066BP (IG001270) ANALOG SW

28: HD74LS14P (IG049600) INV  
 29: Photo Coupler TLP552  
 30: NJM4558DV (IG001390) OP AMP.  
 YA1: (XB622001) HYBRID  
 PST518B-2 (IG116200) SYSTEM RESET

Tr 1: 2SA933S Q, R  
 2: 2SC1740S R, S

D1 ~ 4: 1SS133

RM1 ~ 4: Resistor Array 10KΩ x 8  
 5: Resistor Array 47KΩ x 8

L1 ~ 9: FL Coil

EMI: 0.022μ

CR1: Quartz Crystal Unit 9.4265MHz

CL1: Ceramic Resonator 8MHz

B1: Lithium Battery CR2032-P5-2

DM CN1

Pin No.	Pin Name	Wire Color	Destination
1	VR2	BR	PNA-CN1-1
2	VR3	RE	PNA-CN1-2
3	VCC	OR	PNA-CN1-3
4	IN6	YE	PNA-CN1-4
5	IN5	GR	PNA-CN1-5
6	GND	BE	PNA-CN1-6

DM CN2

Pin No.	Pin Name	Wire Color	Destination
1	IN3	BR	PB-3
2	Vcc	RE	PB-2
3	+2.5	OR	PB-1
4	GND	YE	PB-4

DM CN3

Pin No.	Pin Name	Wire Color	Destination
1	Vcc	VI	MW-1
2	IN1	GY	MW-2
3	GND	WH	MW-3
4	IN2	OR	HP-4
5		YE	HP-5
6		GR	HP-6
7	Vcc	BE	HP-7

DM CN4

Pin No.	Pin Name	Wire Color	Destination
1	IN0	WH	PC-7
2	GND	BL	PC-8
3	+12	OR	PC-3
4	-12	BE	PC-1

DM CN5

Pin No.	Pin Name	Wire Color	Destination
1	S9	BR	PNB-CN1-1
2	S10	RE	PNB-CN1-2
3	S11	OR	PNB-CN1-3
4	S12	YE	PNB-CN1-4
5	S13	GR	PNB-CN1-5
6	S14	BE	PNB-CN1-6
7	S15	VI	PNB-CN1-7
8	W16	GY	PNB-CN1-8

DM CN6

Pin No.	Pin Name	Wire Color	Destination
1	SA	BR	PNB-CN2-1
2	SB	RE	PNB-CN2-2
3	SC	OR	PNB-CN2-3
4	S1	YE	PNB-CN2-4
5	S2	GR	PNB-CN2-5
6	S3	BE	PNB-CN2-6
7	S4	VI	PNB-CN2-7
8	S5	GY	PNB-CN2-8
9	S6	WH	PNB-CN2-9
10	S7	GG	PNB-CN2-10
11	S8	SB	PNB-CN2-11

DM CN7

Pin No.	Pin Name	Wire Color	Destination
1	C	RE	MK-CN1-1
2	B	WH	MK-CN1-2
3	A#	WH	MK-CN1-3
4	A	WH	MK-CN1-4
5	G#	WH	MK-CN1-5
6	G	WH	MK-CN1-6
7	F#	WH	MK-CN1-7
8	F	WH	MK-CN1-8
9	E	WH	MK-CN1-9
10	D#	WH	MK-CN1-10
11	D	WH	MK-CN1-11
12	C#	WH	MK-CN1-12
13	CL	WH	MK-CN1-13

DM CN8

Pin No.	Pin Name	Wire Color	Destination
1	M5	RE	MK-CN2-1
2	M4	WH	MK-CN2-2
3	M3	WH	MK-CN2-3
4	M2	WH	MK-CN2-4
5	M1	WH	MK-CN2-5
6	B1	WH	MK-CN2-6
7	B2	WH	MK-CN2-7
8	B3	WH	MK-CN2-8
9	B4	WH	MK-CN2-9
10	B5	WH	MK-CN2-10

DM CN9 (RAM Cartridge)

Pin No.	Pin Name	Pin No.	Pin Name
1	GND	18	WE
2	CD0	19	CA0
3	CD1	20	CA1
4	CD2	21	CA2
5	CD3	22	CA3
6	CD4	23	CA4
7	CD5	24	CA5
8	CD6	25	CA6
9	CD7	26	CA7
10	CE1	27	CA8
11	CE2	28	CA9
12	OE	29	CA10
13	CA15	30	CA11
14	CA16	31	CA12
15	CT0	32	CA13
16	CT1	33	CA14
17	+5	34	PROT

DM CN10

Pin No.	Pin Name	Wire Color	Destination
1	D0	RE	LED-CN2-1
2	D1	WH	LED-CN2-2
3	D2	WH	LED-CN2-3
4	D3	WH	LED-CN2-4
5	D4	WH	LED-CN2-5
6	D5	WH	LED-CN2-6
7	D6	WH	LED-CN2-7
8	D7	WH	LED-CN2-8
9	A0	WH	LED-CN2-9
10	A1	WH	LED-CN2-10

DM CN11

Pin No.	Pin Name	Wire Color	Destination
1	R/W	RE	LED-CN3-1
2	LEDE	WH	LED-CN3-2
3	LCDE	WH	LED-CN3-3
4	+5	WH	LED-CN3-4
5	+5	WH	LED-CN3-5
6	E	WH	LED-CN3-6
7	E	WH	LED-CN3-7

DM CN12

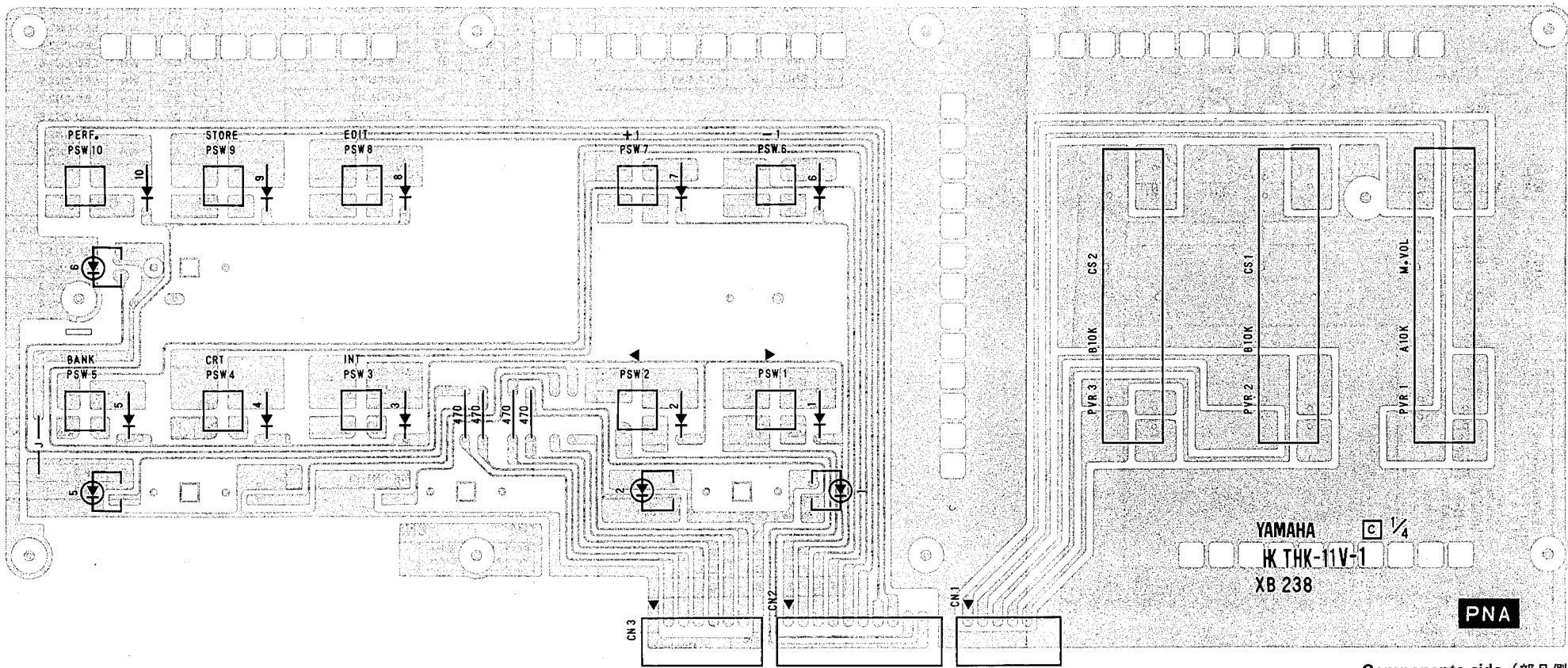
Pin No.	Pin Name	Wire Color	Destination
1	HR	BR	HP-1
2	HL	RE	HP-2
3	GND	BL	HP-3

DM CN13

Pin No.	Pin Name	Wire Color	Destination
1	+12	OR	AD-1
2	E	BL	AD-2
3	-12	BE	AD-3
4	+5	RE	AD-4
5	+5	RE	AD-5
6	E	BL	AD-6
7	E	BL	AD-7

● PN Circuit Boards

PNA



Components side (部品側)

[PNA Circuit Board]

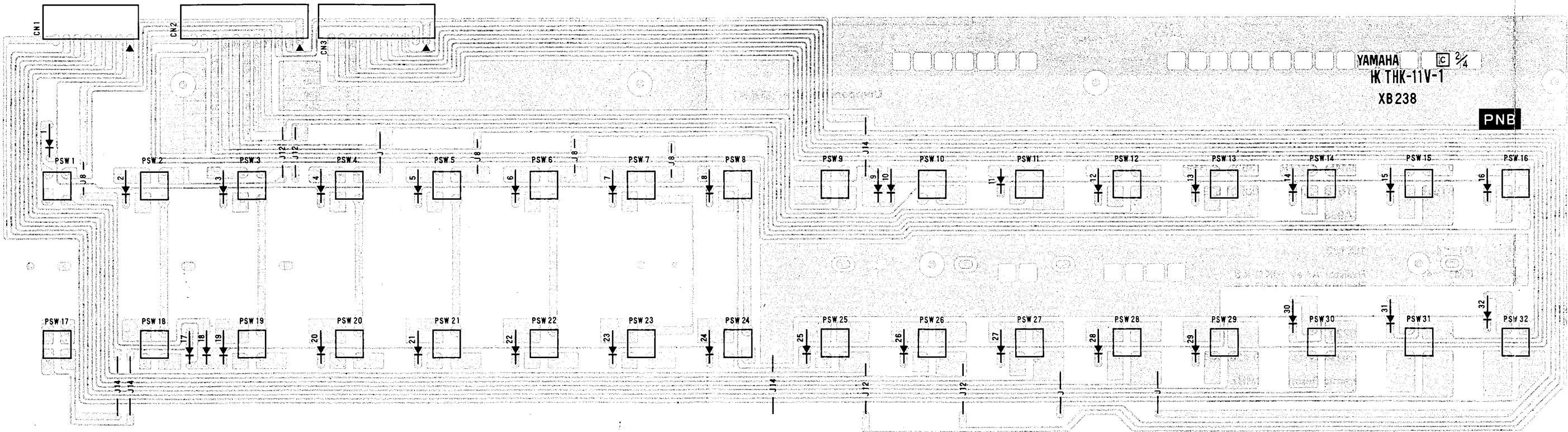
Notes)  
Circuit Board: XB238C  
D1 ~ 10: 1SS133  
LED1, 2, 5, 6: SLC22UR RED  
PSW1 ~ 10: Push Switch KHH10908

PNA			CN1
Pin No.	Pin Name	Wire Color	Destination
1	VR2	BR	DM-CN1-1
2	VR3	RE	DM-CN1-2
3	Vcc	OR	DM-CN1-3
4	CS1	YE	DM-CN1-4
5	CS2	GR	DM-CN1-5
6	GND	BE	DM-CN1-6

PNA			CN2
Pin No.	Pin Name	Wire Color	Destination
1	SB	BR	PNB-CN3-1
2	SC	RE	PNB-CN3-2
3	S9	OR	PNB-CN3-3
4	S10	YE	PNB-CN3-4
5	S11	GR	PNB-CN3-5
6	S12	BE	PNB-CN3-6
7	S13	VI	PNB-CN3-7
8	S14	GY	PNB-CN3-8
9	S15	WH	PNB-CN3-9
10	S16	GG	PNB-CN3-10

PNA			CN3
Pin No.	Pin Name	Wire Color	Destination
1	VDD	RE	LED-CN1-1
2	PERF	WH	LED-CN1-2
3	BANK	WH	LED-CN1-3
4	PBM	WH	LED-CN1-4
5	KSF	WH	LED-CN1-5
6	INT	WH	LED-CN1-6
7	CRT	WH	LED-CN1-7

PNB



Components side (部品側)

## CN1

Wire Color	Destination
BR	DM-CN1-1
RE	DM-CN1-2
DR	DM-CN1-3
YE	DM-CN1-4
GR	DM-CN1-5
BE	DM-CN1-6

## CN2

Wire Color	Destination
BR	PNB-CN3-1
RE	PNB-CN3-2
DR	PNB-CN3-3
YE	PNB-CN3-4
GR	PNB-CN3-5
BE	PNB-CN3-6
VI	PNB-CN3-7
GY	PNB-CN3-8
WH	PNB-CN3-9
GG	PNB-CN3-10

## CN3

Wire Color	Destination
RE	LED-CN1-1
WH	LED-CN1-2
WH	LED-CN1-3
WH	LED-CN1-4
WH	LED-CN1-5
WH	LED-CN1-6
WH	LED-CN1-7

## [PNB Circuit Board]

Notes)

Circuit Board: XB238C

D1 ~ 32: 1SS133

PSW1 ~ 32: Push Switch KHH10908

5X32 = 160

## PNB

## CN1

Pin No.	Pin Name	Wire Color	Destination
1	S9	BR	DM-CN5-1
2	S10	RE	DM-CN5-2
3	S11	OR	DM-CN5-3
4	S12	YE	DM-CN5-4
5	S13	GR	DM-CN5-5
6	S14	BE	DM-CN5-6
7	S15	VI	DM-CN5-7
8	S16	GY	DM-CN5-8

## PNB

## CN2

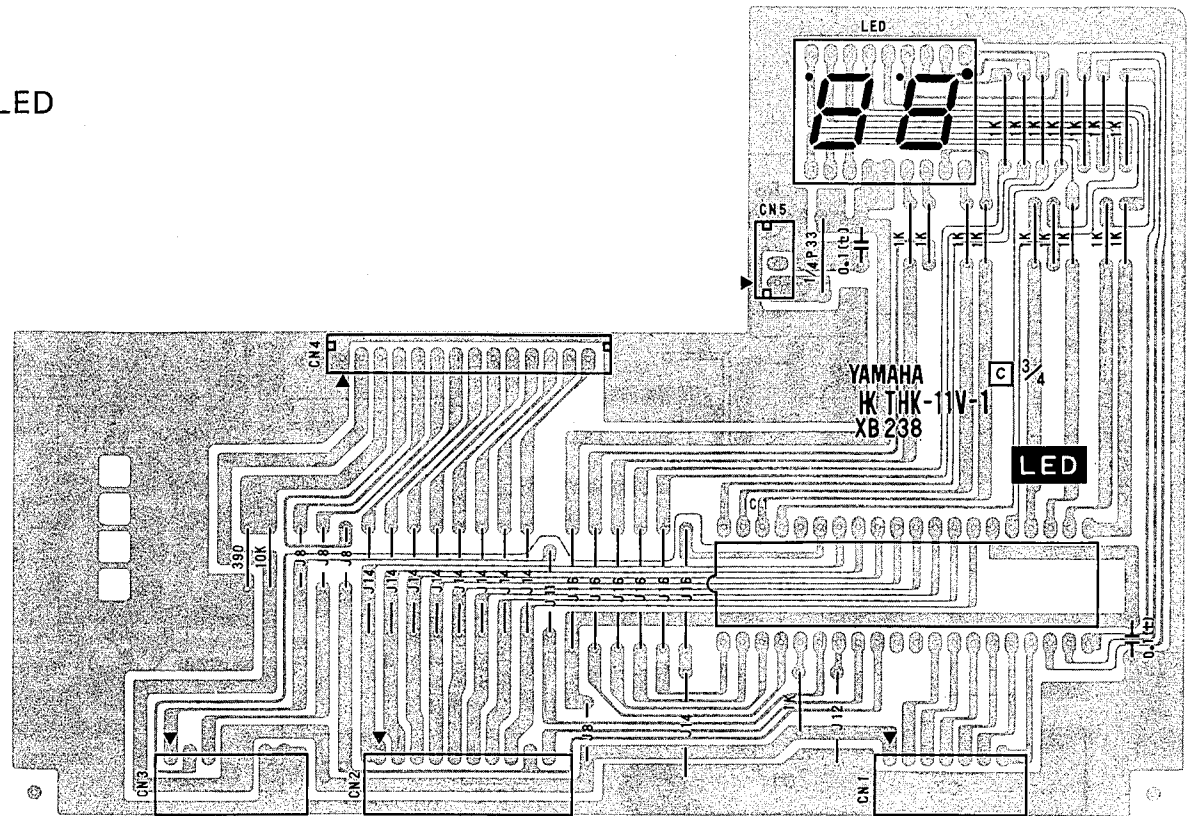
Pin No.	Pin Name	Wire Color	Destination
1	SA	BR	DM-CN6-1
2	SB	RE	DM-CN6-2
3	SC	OR	DM-CN6-3
4	S1	YE	DM-CN6-4
5	S2	GR	DM-CN6-5
6	S3	BE	DM-CN6-6
7	S4	VI	DM-CN6-7
8	S5	GY	DM-CN6-8
9	S6	WH	DM-CN6-9
10	S7	GG	DM-CN6-10
11	S8	SB	DM-CN6-11

## PNB

## CN3

Pin No.	Pin Name	Wire Color	Destination
1	SB	BR	PNA-CN2-1
2	SC	RE	PNA-CN2-2
3	S9	OR	PNA-CN2-3
4	S10	YE	PNA-CN2-4
5	S11	GR	PNA-CN2-5
6	S12	BE	PNA-CN2-6
7	S13	VI	PNA-CN2-7
8	S14	GY	PNA-CN2-8
9	S15	WH	PNA-CN2-9
10	S16	GG	PNA-CN2-10

LED



Components side (部品側)

[LED Circuit Board]

Notes)  
Circuit Board: XB238C  
IC1:  $\mu$ PD8255AC-2 (XA052001) I/O PORT  
LED: LED Display SL-1283-20  
          < Segment + Dot > x 2 RED  
Marked (セ): Semiconductive Ceramic Cap.

LED CN1			
Pin No.	Pin Name	Wire Color	Destination
1	VDD	RE	PNA-CN3-1
2	PERF	WH	PNA-CN3-2
3	BANK	WH	PNA-CN3-3
4	PBM	WH	PNA-CN3-4
5	KSF	WH	PNA-CN3-5
6	INT	WH	PNA-CN3-6
7	CRT	WH	PNA-CN3-7

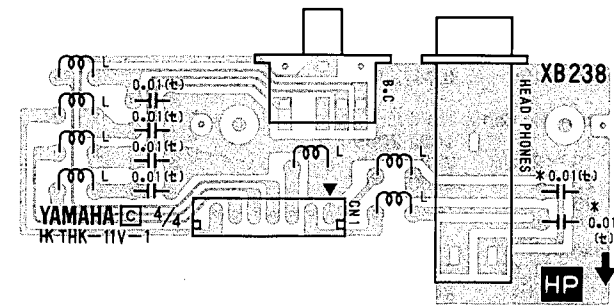
LED CN2			
Pin No.	Pin Name	Wire Color	Destination
1	D0	RE	DM-CN10-1
2	D1	WH	DM-CN10-2
3	D2	WH	DM-CN10-3
4	D3	WH	DM-CN10-4
5	D4	WH	DM-CN10-5
6	D5	WH	DM-CN10-6
7	D6	WH	DM-CN10-7
8	D7	WH	DM-CN10-8
9	A0	WH	DM-CN10-9
10	A1	WH	DM-CN10-10

LED CN3			
Pin No.	Pin Name	Wire Color	Destination
1	R/W	RE	DM-CN11-1
2	LED	WH	DM-CN11-2
3	LCDE	WH	DM-CN11-3
4	VDD	WH	DM-CN11-4
5	VDD	WH	DM-CN11-5
6	GND	WH	DM-CN11-6
7	GND	WH	DM-CN11-7

LED CN4			
Pin No.	Pin Name	Wire Color	Destination
1	VSS	RE	LCD-CN1-1
2	VDD	WH	LCD-CN1-2
3	V0	WH	LCD-CN1-3
4	A0	WH	LCD-CN1-4
5	R/W	WH	LCD-CN1-5
6	LCDE	WH	LCD-CN1-6
7	D0	WH	LCD-CN1-7
8	D1	WH	LCD-CN1-8
9	D2	WH	LCD-CN1-9
10	D3	WH	LCD-CN1-10
11	D4	WH	LCD-CN1-11
12	D5	WH	LCD-CN1-12
13	D6	WH	LCD-CN1-13
14	D7	WH	LCD-CN1-14

LED CN5			
Pin No.	Pin Name	Wire Color	Destination
1	Vcc	RE	LCD-Anode
2	-		
3	GND	BL	LCD-Cathode

H.P



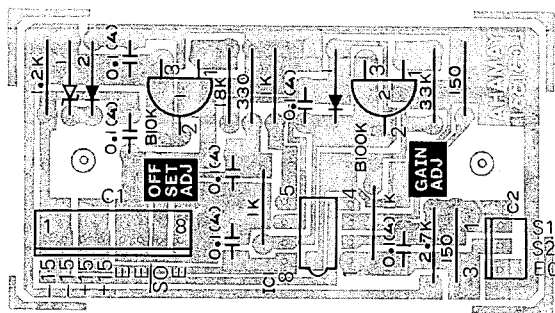
Components side (部品側)

[HP Circuit Board]

Notes)  
Circuit Boards: XB238C  
L: FL Coil 20 $\mu$ H

HP CN1			
Pin No.	Pin Name	Wire Color	Destination
1	HR	BR	DM-CN12-1
2	HL	RE	DM-CN12-2
3	GND	BL	DM-CN12-3
4	BC1	OR	DM-CN3-4
5	BC2	YE	DM-CN3-5
6	BC3	GR	DM-CN3-6
7	BC4	BE	DM-CN3-7

### ● PC Circuit Board



### Components side (部品側)

Notes)

**Circuit Board:**

IC1:

→ 1, 2:

→ 1:

LC31333

NJM4558DV (IG001390) OP AMP.

Diode 1SS1555

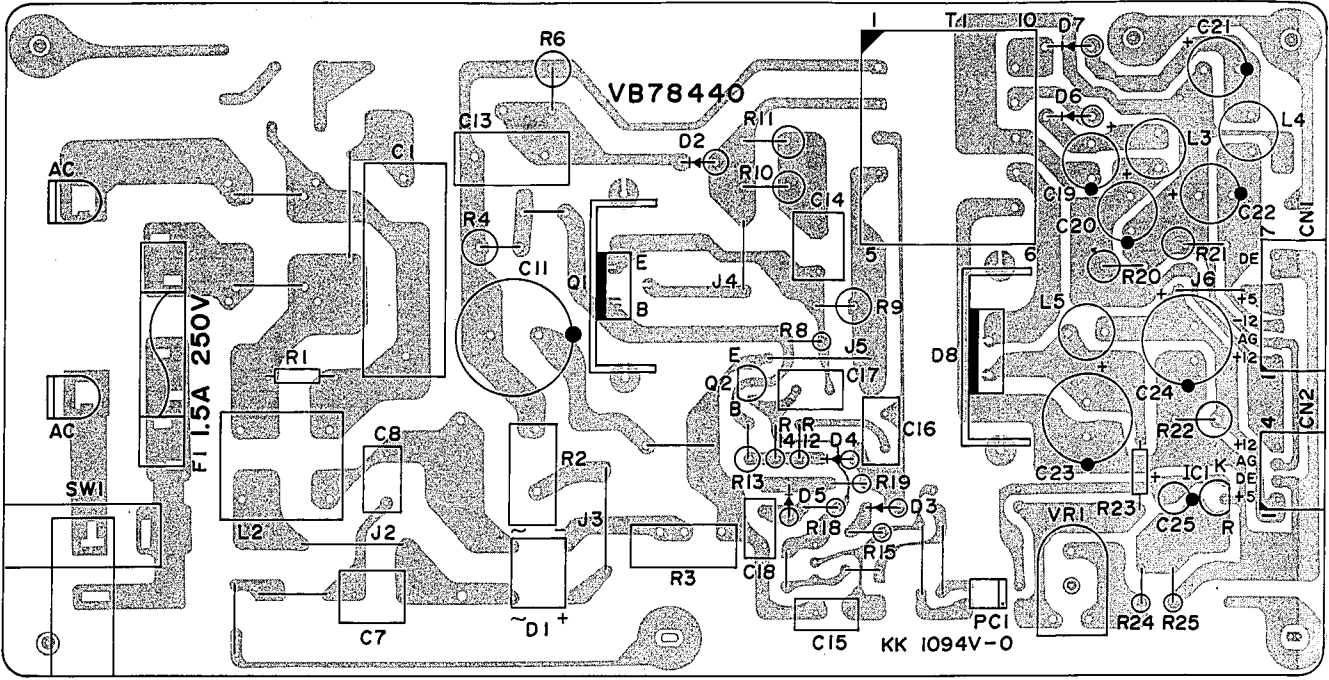
Zener Diode 05Z5.1

PC		CN1	
Pin No.	Pin Name	Wire Color	Destination
1	-15	BE	DM-CN4-4
2	-15	-	
3	+15	OR	DM-CN4-3
4	+15	-	
5	E	-	
6	E	-	
7	OUT	WH	DM-CN4-1
8	E	BL	DM-CN4-2



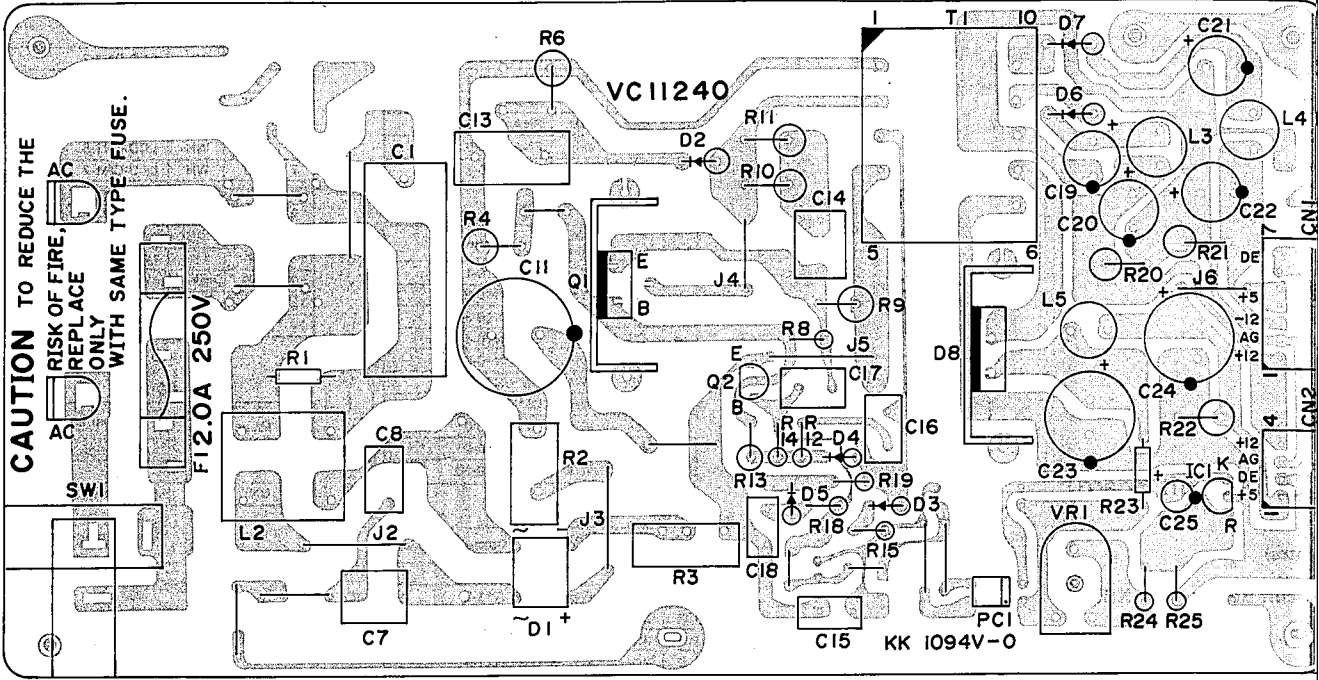
●AD Circuit Boards  
Japanese

DX7



Components side (部品側)

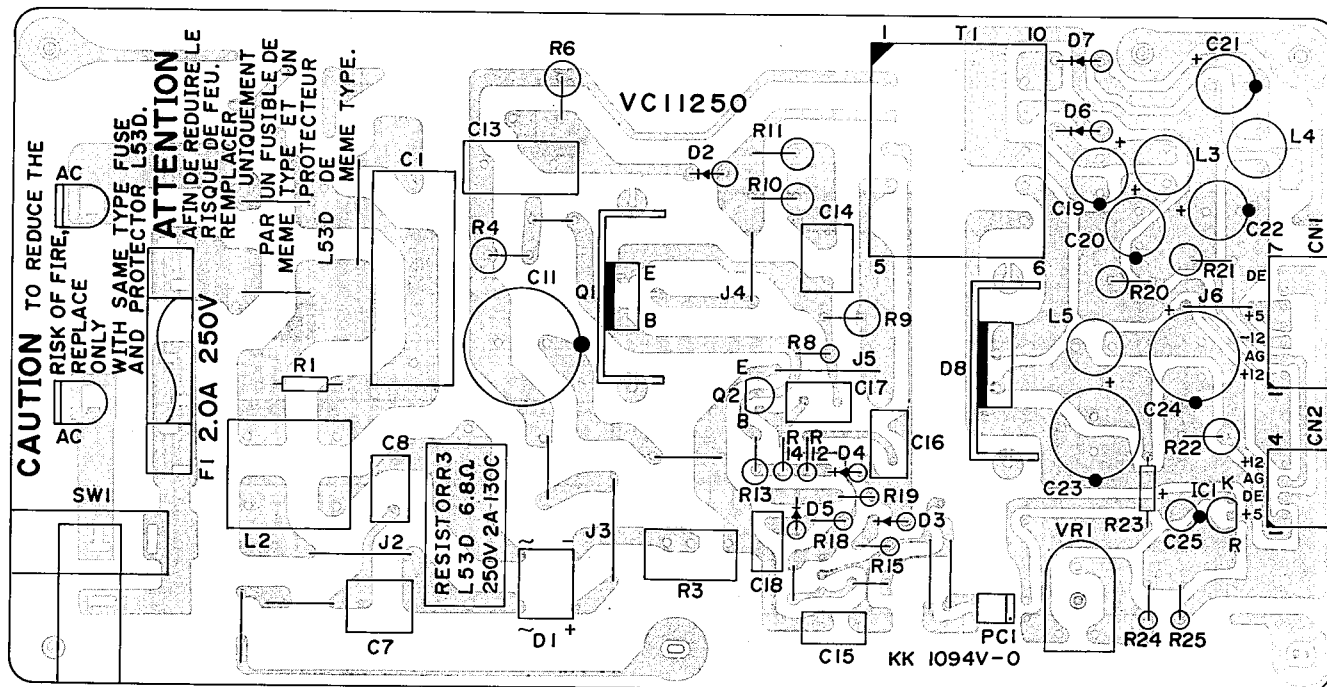
U.S.



Components side (部品側)

AD		CN1		
Pin No.	Pin Name	Wire Color	Destination	
1	+12	OR	DM-CN14-1	
2	E	BL	DM-CN14-2	
3	-12	BE	DM-CN14-3	
4	+5	RE	DM-CN14-4	
5	+5	RE	DM-CN14-5	
6	E	BL	DM-CN14-6	
7	E	BL	DM-CN14-7	

Canadian



Components side (部品側)

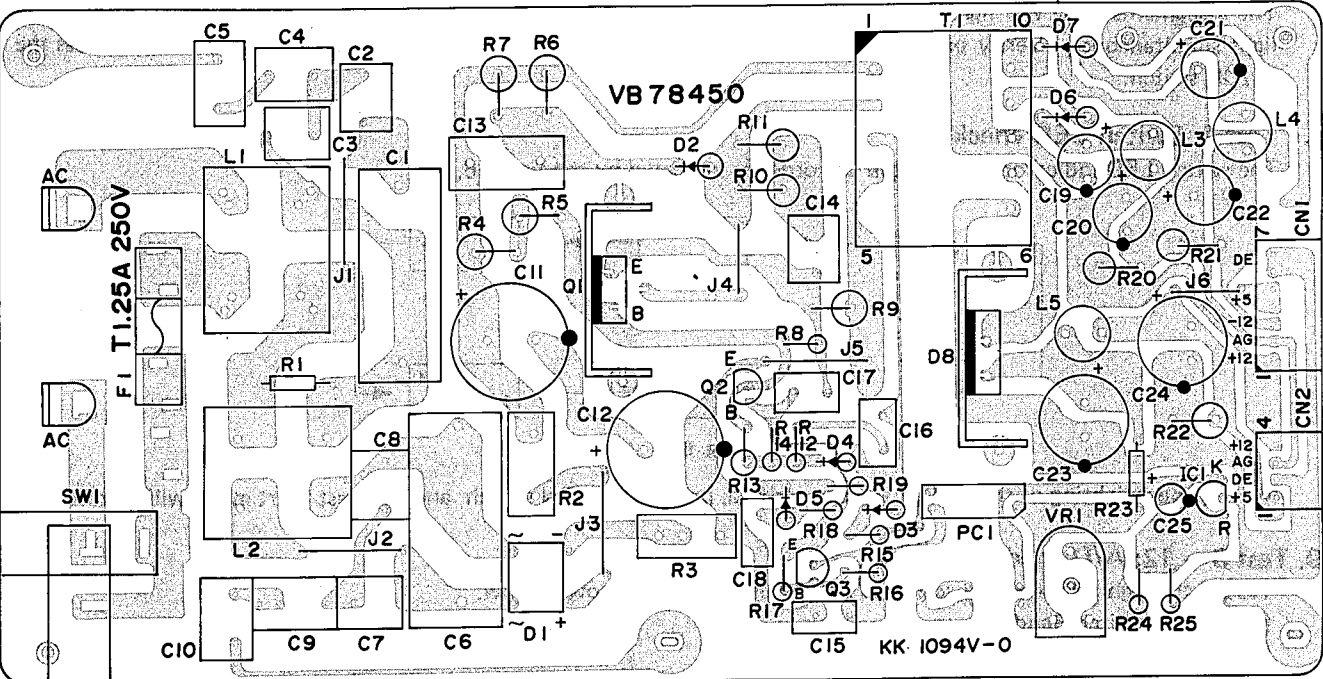
## Notes)

Market: Japanese (J), U.S. (U), Canadian (C)

IC:  
IC1:  $\mu$ PC1093J (IX801910) REGULATORPhoto Coupler  
PC1: PC-817Transistor  
Q1: 2SC3570  
2: 2SC2655Diode  
D1: Diode Bridge S1WB40  
2: ERB4406  
3 ~ 5: 1SS84  
6, 7: ERB4402  
8: 5KQ30Carbon Resistor  
R1, 8, 12, 23 ~ 25: 1/4W  
20 ~ 22: 1/2WMetal Oxide Film Resistor  
R2, 3 (J, U): 1.8 $\Omega$  3W  
4: 120k $\Omega$  2W  
6: 33k $\Omega$  2W  
9: 1 $\Omega$  2W  
10, 11: 240 $\Omega$  2W  
13: 56 $\Omega$  1WFuse Resistor  
R3 (C): 6.8 $\Omega$  3WFlame Proof Carbon Resistor  
R14: 560 $\Omega$  1/4W  
15, 19: 56 $\Omega$  1/2W  
18: 150 $\Omega$  1/4WMetallized Paper Cap.  
C1 (J, C): 0.1 $\mu$  125V  
1 (U): 0.22 $\mu$  125VCeramic Cap.  
C7, 8: 2200P 250V  
13: 0.01 $\mu$  250V  
14: 1000P 1000VMylar Cap.  
C15 ~ 18: 0.047 $\mu$  50VElectrolytic Cap.  
C11: 100 $\mu$  200V  
19 ~ 22: 220 $\mu$  25V  
23, 24: 2200 $\mu$  10V  
25: 1 $\mu$  50VChoke Coil  
L1, 2 (J, C): 10mH  
2 (U): 20mH  
3 ~ 5: 47 $\mu$ HFuse  
F1 (J): 1.5A 250V  
1 (U, C): 2.0A 250VYG-4035-013 (J)  $\triangle$   
YG-4035-016 (U)  $\triangle$   
YG-4035-017 (C)  $\triangle$

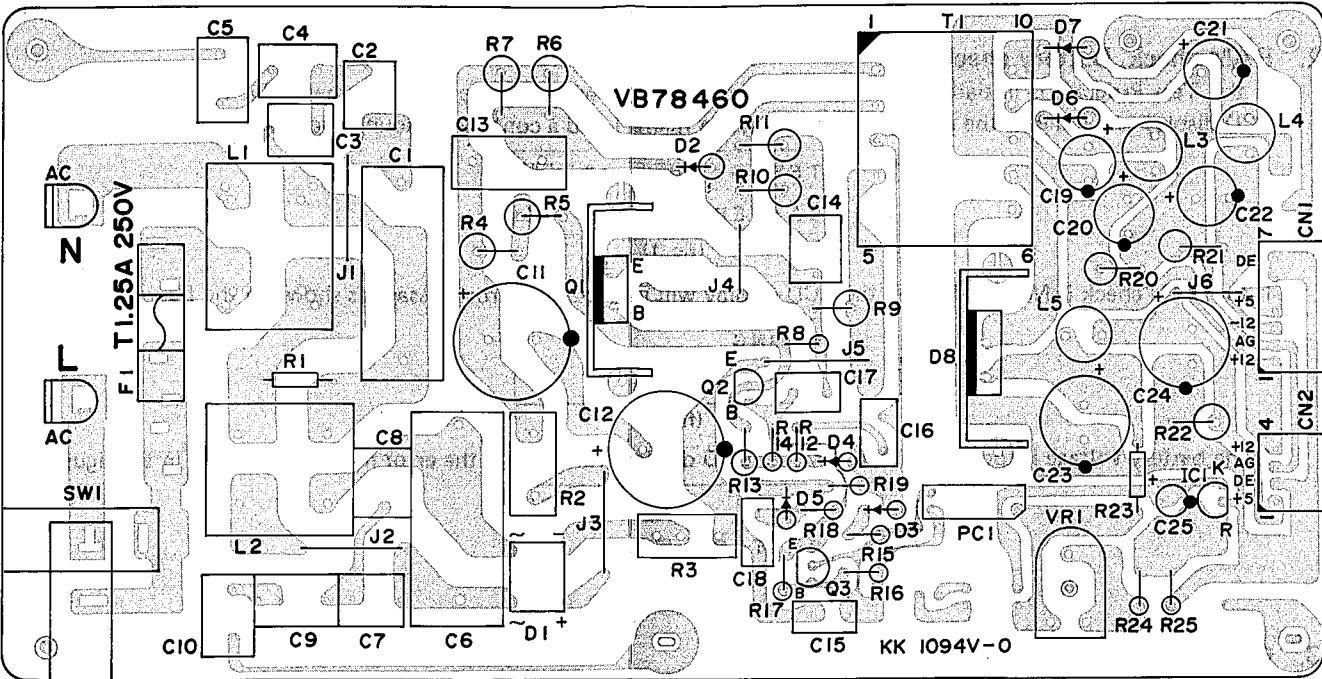


North European, Australian



Components side (部品側)

West German



Components side (部品側)

Notes)

Market: North European (H), West German (D), Australian (A)

IC  
IC1:  $\mu$ PC1093J (IX801910) REGULATOR

PC1: PC-511

Transistor  
Q1: 2SC3531  
2: 2SC2655  
3: 2SC1815

Diode  
D1: Diode Bridge S1WB60  
2: ERB44-06  
3~5: 1SS84  
6, 7: ERB44-02  
8: 5KQ30

Carbon Resistor  
R1, 8, 12, 16, 17  
23~25: 1/4W  
20~22: 1/2W

Wire Wound Resistor  
R2, 3: 4.3 $\Omega$  5W

Metal Oxide Film Resistor  
R4, 5: 120K $\Omega$  2W  
6, 7: 68K $\Omega$  2W  
9: 1 $\Omega$  2W  
10, 11: 560 $\Omega$  2W  
13: 82 $\Omega$  1W

Flame Proof C. Resistor  
R14: 510 $\Omega$  1/4W  
15, 19: 56 $\Omega$  1/4W  
18: 200 $\Omega$  1/4W

Metallized Paper Cap.  
C1, 6 (H, A): 0.1 $\mu$  125V  
1, 6 (D): 0.47 $\mu$  250V

Ceramic Cap.  
C2, 3, 7, 8: 1000P 250V  
4, 5, 9, 10: 2200P 250V  
13: 0.01 $\mu$  250V  
14: 100P 1000V

Mylar Cap.  
C15~18: 0.047 $\mu$  50V

Electrolytic Cap.  
C11, 12: 100 $\mu$  200V  
19~22: 220 $\mu$  25V  
23, 24: 2200 $\mu$  10V  
25: 1 $\mu$  50V

Choke Coil  
L 1 (H, A), 2 (D): 20mH  
1 (D): 40mH  
2 (H, A): 10mH  
3~5: 47 $\mu$ H

Fuse  
F1: 1.25A 250V

YG-4035-014 (H, A)  $\triangle$   
YG-4035-015 (D)  $\triangle$